GLIDER TRAINING PLAN

April 2003

CAP Glider Training Plan

Senior Members

The CAP Glider Program exists for cadets, however, competent and proficient senior member glider orientation and instructor pilots are essential for program growth and safety.

Initial Flight Training
Each new senior member glider pilot is required to receive a checkout in each CAP glider to be flown. The checkout will be in accordance with the CAP Initial Glider Check Out Program. *See attachment 1.* Upon successful accomplishment of the initial training program the new senior member glider pilot will be evaluated, using the CAP Form 5G, to the appropriate standard in accordance with CAPR 60-1.

During the initial CAPF 5G each new senior member glider pilot will be required to demonstrate knowledge of CAPP 52-7 and the maneuvers required to accomplish the glider portion of that pamphlet. Successful accomplishment of the CAP On-line Cadet Orientation Quiz is mandatory.

Recurring Flight Training
CAP senior member glider pilot's will maintain FAA passenger carrying qualification at all times. Members are encouraged to use the Glider Proficiency Program Syllabus, when appropriate, to aid in maintaining proficiency. *See attachment 2.*

Cadets

CAP cadets may participate in the glider program through varied methods. The Glider Orientation Program specified in CAPP 52-7 prohibits flight training and will not be addressed in this training plan.

Initial Flight Training
Cadets are authorized, in accordance with CAPR 60-1, ab initio and advanced flight training in a glider from authorized CAP Glider Flight Instructors toward the attainment of an FAA pilot's certificate. All flight training will be conducted in accordance with FAR Part 61 and all flight training, dual or solo, will be directly supervised by a CAP Glider Flight Instructor. Cadet's will use the CAP Glider Flight Training Syllabus and the Soaring Society of America Flight Training Handbook during their training. *See attachment 3.*

Recurring Flight Training
CAP cadet glider pilots will maintain FAA passenger carrying qualification at all times. Members are encouraged to use the Glider Proficiency Program Syllabus, when appropriate, to aid in maintaining proficiency. *See attachment 2.*

CAP Initial Glider Check Out Program

All senior member CAP glider pilot's must complete the following CAP Initial Glider Check Out Program with an FAA CFIG prior to their Initial CAPF 5 Flight Evaluation.

Training Items	Completed to the appropriate FAA PTS CFIG Signature and date
Ground Training Review	
Aircraft POH Familiarization Operating Limitations – Emergency Procedures – Normal Procedures Performance – Weight & Balance – Glider Systems Assembly/Disassembly	
Glider Pre-flight Inspection	
Tow Line and Tow Ring Inspection	
Glider Ground Handling	
Glider Tie-down Procedures	
CAP Flight Release Procedures	
Use of Checklists	
Other Operational Issues	
CAPP 52-7 Knowledge	
Flight Training Review	
Before Take-off Procedures	
Take-off	
Aero-tow – straight and turns	
Ground Launch – as applicable	
Box the Wake	
Normal Release	
Medium and Steep turns	
Slow Flight	
Stalls – straight and turning	
Pattern entry	
Use of Radio – if installed	
Before Landing Checklist	
Landing and Roll-out	
After Landing Procedures	
Emergency Procedures Review	
Review American Standard Soaring Signals On the ground and coordinate with tow plane to observe in flight	
Pre-mature Termination of Tow – Take-off Roll (verbal only)	
Pre-mature Termination of Tow – below 200' (verbal only)	
Pre-mature Termination of Tow – above 200'	
Glider Can Not Release (verbal only)	
Glider and Tow Plane Can Not Release (verbal only)	

The check out program can be completed in a little as two flights. Additional flights should be added to ensure the trainee is flying at or above the appropriate PTS standard.

Attachment 1

CAP Glider Proficiency Program Syllabus

Completion of the following syllabus items will ensure currency.
Each individual CAP glider pilot is personally responsible for ensuring he or she is proficient and should accomplish the following training items in such a manner and frequency as to ensure proficiency.

Proficiency Training Items	Date Proficient
Ground Training Review	
Aircraft POH Review Complete the CAP Glider Questionnaire for the appropriate glider	
Glider Pre-flight Inspection	
Tow Line and Tow Ring Inspection	
Glider Ground Handling Issues	
Glider Tie-down Procedures	
Use of Checklists	
Other Operational Issues	
Flight Training Review	
Before Take-off Procedures	
Take-off (3 in a 90 day period)	
Aero-tow – straight and turns	
Ground Launch – as applicable	
Box the Wake	
Normal Release	
Medium and Steep turns	
Slow Flight	
Stalls – straight and turning	
Pattern Entry	
Radio Procedures – if installed	
Before Landing Checklist	
Landing and Roll-out (3 in a 90 day period)	
After Landing Procedures	
Emergency Procedures Review	
Review American Standard Soaring Signals On the ground and coordinate with tow plane to observe in flight	
Pre-mature Termination of Tow – Take-off Roll (verbal only)	
Pre-mature Termination of Tow – below 200’ (verbal only)	
Pre-mature Termination of Tow – above 200’ (verbal only)	
Glider Can Not Release (verbal only)	
Glider and Tow Plane Can Not Release (verbal only)	

Attachment 2

CIVIL AIR PATROL

United States Air Force Auxiliary

Glider Flight Training
Course Outline

April 2003

Attachment 3

CAP Glider Flight Training Course

FLIGHT RULES

1. Glider training flights **shall not** begin prior to official sunrise.

2. Glider training aircraft (any aircraft being flown with cadets on board, for the purpose of flight instruction) shall be on the ground **not later than** 30 minutes before official sunset.

3. Cadets **shall not** be flown on maintenance support flights. Cadets may receive rides in corporate-owned glider tow aircraft for orientation purposes. These flights shall be limited to one or two per cadet, and only allowed if the tow aircraft has sufficient performance to safely tow a two-place glider while carrying a passenger. Glider tow aircraft **shall not** tow while carrying more than one passenger.

4. Training of tow plane pilots while towing CAP training gliders **is not authorized.**

5. Cadets may be transported to and/or from the glider flight training activity in CAP aircraft in accordance with CAPR 60-1.

6. Glider Flight Training Weather Minimums

Dual Instruction Flights

No dual flight instruction will be given unless the weather (current and forecast for time of return) meets the following criteria:

For flights outside the airport traffic pattern (tows above 1000' AGL):

Ceiling not less than 2500' AGL.
Flight visibility not less than 3 nautical miles.
Winds not greater than 20 kts. (sustained or gust), and not exceeding 12 kts. crosswind component or the aircraft's maximum demonstrated crosswind, which ever is higher, for the runway(s) to be used.

For flights within the airport traffic pattern (tows up to 1000' AGL):

Ceiling not less than 1500' AGL.
Flight visibility not less than 3 nautical miles.
Winds not greater than 20 kts. (sustained or gust), and not exceeding 12 kts. crosswind component or the aircraft's maximum demonstrated crosswind, which ever is higher, for the runway(s) to be used.

Solo Flights

No student solo flights will be conducted unless the weather (current and forecast for time of return) meets the following criteria:

Ceiling not less than 2500' AGL.
Flight visibility not less than 5 nautical miles.
Winds not greater than 10 kts. (sustained or gust), and not exceeding 5 kts. crosswind component for the runway(s) to be used.

CAP Glider Flight Training Course

Training Standardization

1. As in all other CAP activities…**SAFETY IS OUR #1 GOAL!!**

2. Transfer of control of the aircraft must be explained to the student before every flight. **The procedure should be a challenge/response.** Example - Instructor's challenge: "I've got the controls." Student's response: "You've got the controls."

3. The student must sit high enough to have good visibility over the nose of the aircraft. Use a firm cushion if necessary. The student should be sitting forward enough to make full rudder deflections, but not so far forward that full aft movement of the control stick is inhibited. Be sure that the student's seating position is the same for each flight and the cushion is restrained in such a manner that will prevent control interference.

4. Stress division of attention from the very first flight and reiterate during all maneuvers.

5. Introduce scanning techniques and reiterate throughout the flight training process.

6. Perform clearing turns before practice maneuvers -- Clearing turns consist of at least 180 degrees of turn (one 180, or two 90 degree turns in opposite directions) at approximately 30 degrees of bank.

7. Students shall complete the proper checklists prior to takeoff and landing.

8. Introduce and stress the use of a constant reference in determining pitch attitude. Different methods will work for different students, but the method chosen should be used consistently. Each student must be able to demonstrate the correct pitch attitude for all maneuvers without reference to the airspeed indicator.

9. During takeoff the student will ensure the spoilers are closed and remain closed throughout the takeoff and initial climb.

10. Recoveries from both imminent and fully stalled conditions should be taught for all stalls.

11. Student's must be familiar and aware of the danger of cross-controlled situations during low altitude turns.

12. The flight instructor will promptly inform the CAP Glider Program Manager of students who are having greater than normal difficulties with training. Evaluation by a different instructor may be necessary and should be completed as soon as possible.

13. Flight instructors should take convenient opportunities to communicate the **'fun of soaring'** without impacting the training syllabus. Thermal soaring techniques, recognition of possible areas of lift or sink, glide estimation and planning are items that develop smoothness and judgment, as well as add some sense of relaxation and achievement to the activity.

As in all other CAP activities: **SAFETY IS OUR #1 GOAL!!**

Completion Level Key

LEVEL 1 Student is able to participate in the maneuver as while demonstrated by the flight instructor.

LEVEL 2 Student is able to perform the assigned maneuver with explanation and minimum assistance from the flight instructor.

LEVEL 3 Student is able to perform the assigned maneuver with a minimum of explanation and with no assistance from the flight instructor.

LEVEL 4 **Before-solo:** Student is able to perform the assigned maneuver to the level of competence necessary for safe, solo flight, with no explanation or assistance from the instructor.
After-solo: Student is able to perform the assigned maneuver at or above the appropriate FAA PTS level.

Each lesson will usually require multiple flights to complete.

Tows to higher altitudes are useful early in the training program to allow the student more time to become accustomed to flying the glider on tow, and to give more time to accomplish the flight maneuvers.

Regardless of the training schedule used, the student's first flight should be in the still air of the morning or late afternoon. Rotate the students through a first flight early the first day before concentrating on detailed training flights.

Remember, each lesson will usually require multiple flights to complete.

LESSON 1
Before-Solo

Completion Standards
The first lesson consists of familiarization with the aircraft, assembly, preflight, operating procedures, the sensations of flight, local flight areas, and the use of flight controls and instruments. Students should be able to keep the aircraft reasonable straight and perform shallow to medium turns at the end of this lesson.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Aircraft familiarization Cockpit familiarization Controls Instruments Aircraft systems Aircraft flight manual or pilot operating handbook Flight Preparation	Level 2	
2. Aircraft Assembly & Disassembly Use of checklist Use of Aircraft flight manual or pilot operating handbook Safety precautions	Level 1	
3. Preflight Inspection Use of checklist Positive control check Inspect towline and rigging	Level 1	
4. Ground Handling (Surface Operations) Ground towing Pushing by hand Obstacle clearance Parking Tying aircraft down	Level 1	
5. Pre-takeoff Check	Level 1	"A-BB-CCC-DD-E" Checklist should be committed to memory.
6. Takeoff & Aero tow	Level 1	Demonstrate high-tow & low-tow, Area familiarization
7. Flight Controls Stability Trim Straight glide Pitch & bank control Turns: medium bank (approx. 30 degrees) Use of spoilers	Level 1	Emphasize coordinated flight and outside references. Demonstrate adverse yaw. Show effect on instruments.

OPERATION	**COMPLETION LEVEL**	**COMMENTS**
8. Traffic Pattern, Approach & Landing Checklist useage Entry procedures Visual scan for traffic	Level 1	"U-S-T-A-L-L" should be committed to memory before the next flight.
9. Post-Flight Discussion		
10. Preview Next Lesson Review straight glides & turns Introduce steep turns, slow flight/ MCA & stalls, and Slack line recovery.		Student Reading Assignment: Soaring Flight Manual: Straight Glides – page 14-3 Gliding Turns – page 14-4 Slow Flight and Stalls – page 14-4 Slack Line – page 12-14 Preflight & Ground Ops pages 11-1 thru 11-10 Aero Tow Launch Procedures – 2-2 thru 2-8

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 1

OPERATION	COMMENTS
1. Aircraft familiarization **(Level 2 – check when complete)** Cockpit familiarization ___ Controls ___ Instruments ___ Aircraft systems ___ Aircraft flight manual / pilot operating handbook ___ Flight Preparation ___	
2. Aircraft Assembly & Disassembly **(Level 1 – check when complete)** Use of checklist ___ Safety precautions ___	
3. Preflight Inspection **(Level 1 – check when complete)** Use of checklist ___ Positive control check ___ Inspect towline and rigging ___	
4. Ground Handling (Surface Ops) **(Level 1 – check when complete)** Ground towing ___ Pushing by hand ___ Obstacle clearance ___ Parking ___ Tying aircraft down ___	
5. Pre-takeoff Check **(Level 1 – check when complete)** Use of checklist ___	
6. Takeoff & Aero tow **(Level 1 – check when complete)** Takeoff & Aerotow ___	
7. Flight Controls **(Level 1 – check when complete)** Stability ___ Use of Trim ___ Straight glide ___ Pitch & bank control ___ Med. bank turns (approx. 30 degrees) ___ Use of spoilers ___	
8. Traffic Pattern, Approach & Landing **(Level 1 – check when complete)** Use of checklist ___ Entry procedures ___ Visual scan for traffic ___	
9. Post-Flight Discussion___	
0. Preview Next Lesson Review straight glides & turns Introduce steep turns, slow flight/ MCA & stalls, and Slack line recovery.	Student Reading Assignment: Soaring Flight Manual: Straight Glides – page 14-3 Gliding Turns – page 14-4 Slow Flight and Stalls – page 14-4 Slack Line – page 12-14 Preflight & Ground Ops pages 11-1 thru 11-10 Aero Tow Launch Procedures – 2-2 thru 2-8

LESSON 2
Before-solo

At the end of the second lesson, the student should be able to perform straight glides, medium-banked turns, slow-flight, steep turns, and straight-ahead stalls with direction and minimum assistance from the instructor.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		
2. Aircraft familiarization	Level 3	
3. Aircraft Assembly	Level 2	
4. Preflight Inspection	Level 2	
5. Ground Handling (Surface Operations)	Level 2	
6. Pre-takeoff Check	Level 2	
7. Takeoff & Aero tow	Level 2	
8. Slack line recovery	Level 1	
9. Low Tow Position	Level 1	Transition through the wake.
10. Straight Glides	Level 2	Emphasize attitude flying for airspeed control.
11. Medium Turns	Level 2	Maintain constant airspeed.
12. Steep Turns	Level 1	Suggest warm-up with 45 degree banks prior to 50-60 degree bank.
13. Flight at various airspeeds	Level 1	
14. Slow Flight	Level 1	
15. Straight Ahead Stalls	Level 1	Above 1500' AGL
16. Traffic Pattern and Landing	Level 2	
17. Post-Flight Discussion		
18. Preview Next Lesson Review previous maneuvers. Introduce turning stalls.		Student Reading Assignment: Soaring Flight Manual: Takeoffs & tow – page 12-8 thru 12-19. Review stalls – pages 14-5 thru 14-7 Traffic pattern & Landing – page 14-10 thru 14 -16. Flight Instruments – pages 3-2 thru 3-14 Sailplane Aerodynamics – pages 1-2 thru 1-18

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 2

OPERATION	COMMENTS
1. Aircraft familiarization (Level 3 – check when complete) ___	
2. Aircraft Assembly & Disassembly (Level 2 – check when complete) ___	
3. Preflight Inspection (Level 2 – check when complete) ___	
4. Ground Handling (Surface Ops) (Level 2 – check when complete) ___	
5. Pre-takeoff Check (Level 2 – check when complete) ___	
6. Takeoff & Aero tow (Level 2 – check when complete) ___	
7. Slack Line Recovery (Level 1 – check when complete) ___	
8. Low Tow Position (Level 1 – check when complete) ___	
9. Straight Glides (Level 2 – check when complete) ___	
10. Medium Bank Turns (Level 2 – check when complete)___	
11. Steep Turns (Level 1 – check when complete) ___	
12. Flight at various airspeeds (Level 1 – check when complete) ___	
13. Slow Flight (Level 1 – check when complete) ___	
15. Straight Ahead Stalls (Level 1 – check when complete) ___	
16. Traffic Pattern and Landing (Level 2 – check when complete) ___	
17. Post-Flight Discussion	
18. Preview Next Lesson Review previous maneuvers. Introduce turning stalls.	Student Reading Assignment: Soaring Flight Manual: Takeoffs & tow – page 12-8 thru 12-19. Review stalls – pages 14-5 thru 14-7 Traffic pattern & Landing – page 14-10 thru 14 -16. Flight Instruments – pages 3-2 thru 3-14 Sailplane Aerodynamics – pages 1-2 thru 1-18

LESSON 3
Before-solo

At the completion of this lesson, the student should perform the basic flight maneuvers with a reasonable degree of proficiency, and should accomplish slow-flight and straight-ahead stalls with minimum assistance from the instructor. The student should be responsible for pre-flight inspection, ground handling, and parking without direction from the instructor, except in unusual or unfamiliar situations.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		
2. Aircraft familiarization	Level 4	
3. Aircraft Assembly & Preflight Inspection	Level 3	Reinforce use of checklists
4. Ground Handling (Surface Operations)	Level 3	
5. Pre-takeoff Check	Level 3	
6. Takeoff & Aero tow	Level 2	
7. Low Tow Position	Level 2	Transition through the wake.
8. Boxing the wake	Level 1	Show how all controls are used in this maneuver. Emphasize pausing at each corner of the box.
9. Straight Glides & Medium Turns	Level 3	
10. Steep Turns	Level 2	Use 45 - 60 degrees of bank.
11. Airspeed Changes & Slow Flight/MCA	Level 2	
12. Straight Ahead Stalls	Level 2	Imminent & full stalls. Emphasize signs of a stall. Recover above 1500' AGL!
13. Turning Stalls	Level 1	Emphasize the need for coordination. Recover above 1500' AGL!
14. Traffic Pattern, Approach, and Landing	Level 2	
15. Post-Flight Discussion		
16. Preview Next Lesson Review previous maneuvers. Accelerated stalls Crosswind takeoffs Crosswind landing		Student Reading Assignment: Soaring Flight Manual: Review accelerated stalls – page 14-6 Review crosswind takeoff – page 12-10 Crosswind & Downwind Landing – page 14-15 thru 14-16 Medical Factors – pages 5-2 thru 5-16 Thermal Soaring – page 15-2 thru 15-4

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 3

OPERATION	COMMENTS
1. Aircraft familiarization (Level 4 – check when complete) ___	
2. Aircraft Assembly & Disassembly (Level 3 – check when complete) ___	
3. Preflight Inspection (Level 3 – check when complete) ___	
4. Ground Handling (Surface Ops) (Level 3 – check when complete) ___	
5. Pre-takeoff Check (Level 3 – check when complete) ___	
6. Takeoff & Aero tow (Level 2 – check when complete) ___	
7. Low Tow Position (Level 2 – check when complete) ___	
8. Boxing the Wake (Level 1 – check when complete) ___	
9. Straight Glides & Medium Bank Turns (Level 3 – check when complete)___	
10. Steep Turns (Level 2 – check when complete) ___	
11. Flight at various airspeeds & Slow Flight (Level 2 – check when complete) ___	
12. Straight Ahead Stalls (Level 2 – check when complete) ___	
13. Turning Stalls (Level 1 – check when complete ___	
14. Traffic Pattern and Landing (Level 2 – check when complete) ___	
15. Post-Flight Discussion	
16. Preview Next Lesson Review previous maneuvers. Accelerated stalls Crosswind takeoffs Crosswind approaches	Student Reading Assignment: Soaring Flight Manual: Review accelerated stalls – page 14-6 Review crosswind takeoff – page 12-10 Crosswind & Downwind Landing – page 14-15 thru 14-16 Medical Factors – pages 5-2 thru 5-16 Thermal Soaring – page 15-2 thru 15-4

LESSON 4
Before-Solo

At the end of this lesson, the student will be able to perform all ground operations without the assistance of the flight instructor. The student should perform most of the flight maneuvers previously introduced with only occasional assistance of explanation. Accelerated stalls and crosswind takeoffs and landings will be introduced.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		Emphasize the need for good heading & airspeed control during all maneuvers.
2. Aircraft Assembly & Preflight Inspection	Level 4	
3. Ground Handling (Surface Operations)	Level 4	
4. Pre-takeoff Check	Level 4	
5. Takeoff (Normal and X-wind) & Aero tow	Level 2	Teach crosswind takeoffs as opportunities arise.
6. Boxing the Wake & Low Tow Position	Level 2	Transition through the wake.
7. Straight Glides & Medium Turns	Level 3	Reinforce coordination
8. Steep Turns	Level 3	
9. Airspeed Changes & Slow Flight/MCA	Level 3	
10. Straight Ahead Stalls	Level 2	Try stall with the spoilers open.
11. Turning Stalls	Level 2	Imminent & full stalls. Recover above 1500' AGL!
12. Accelerated Stalls	Level 1	Enter at 1.5 Vs, & 45 degree bank.
13. Cross-controlled Stalls	Level 1	Enter no lower than 2500' AGL! Recover above 1500' AGL!
14. Traffic Pattern, Approach, Landing (Crosswind)	Level 2	
15. Post-Flight Discussion		
16. Preview Next Lesson Review previous maneuvers. Forward and sideslips Slips to landings		Student Reading Assignment: Soaring flight Manual: Slips – page 14-8 thru 14-10 Review crosswind takeoff – page 12-10

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 4

OPERATION	COMMENTS
1. Aircraft Assembly & Disassembly (Level 4 – check when complete) ___	
2. Preflight Inspection (Level 3 – check when complete) ___	
3. Ground Handling (Surface Ops) (Level 4 – check when complete) ___	
4. Pre-takeoff Check (Level 4 – check when complete) ___	
5. Takeoff (Nor and xwind)& Aero tow (Level 2 – check when complete) ___	
6. Box the Wake & Low Tow Position (Level 2 – check when complete) ___	
7. Straight Glides & Medium Bank Turns (Level 3 – check when complete)___	
8. Steep Turns (Level 3 – check when complete) ___	
9. Flight at various airspeeds & Slow Flight (Level 3 – check when complete) ___	
10. Straight Ahead Stalls (with spoilers) (Level 2 – check when complete) ___	
11. Turning Stalls (Level 2 – check when complete) ___	
12. Accelerated Stalls (Level 1 – check when complete) ___	
13. Cross-Control Stalls (2500' entry) (Level 1 – check when complete) ___	
14. Traffic Pattern and Landing (X-wind) (Level 2 – check when complete) ___	
15. Post-Flight Discussion	
16. Preview Next Lesson Review previous maneuvers. Forward and sideslips Slips to landings	Student Reading Assignment: Soaring flight Manual: Slips – page 14-8 thru 14-10 Review crosswind takeoff – page 12-10

LESSON 5

This lesson is a review of the flight maneuvers and procedures already covered in preparation for concentrated work on takeoffs, tows, and landings. A reasonable degree of proficiency in coordination, and airspeed control should be achieved prior to the competition of this lesson.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		Emphasize the need for good heading & airspeed control during all maneuvers.
2. Preflight Inspection	Level 4	
3. Takeoff (Normal and X-wind) & Aero tow	Level 2	Teach crosswind takeoffs as opportunities arise.
4. Boxing the Wake & Low Tow Position	Level 2	Transition through the wake.
5. Straight Glides & Medium Turns	Level 4	Practice performance speeds and glide estimation.
6. Steep Turns	Level 4	
7. Airspeed Changes & Slow Flight/MCA	Level 3	
8. Straight Ahead Stalls	Level 3	
9. Turning Stalls	Level 3	
10. Accelerated Stalls	Level 2	
11. Forward slips & Sideslips	Level 1	Right & Left. Emphasize pitch for airspeed control, slips during a turn, and slips with and without spoilers.
12. Traffic Pattern, Approach	Level 2	Emphasize proper tracking in crosswind situations.
13. Slips to Landing	Level 2	
14. Post-Flight Discussion		
15. Preview Next Lesson Review previous maneuvers. Introduce steep spirals.		Student Reading Assignment: Soaring Flight Manual: Spiral Dives – page 14-5 & fig. 14-4. Regulations – 6-1 thru 6-8

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 5

OPERATION	COMMENTS
1. Aircraft Assembly & Disassembly (Level 4 – check when complete) ___	
2. Preflight Inspection (Level 3 – check when complete) ___	
3. Ground Handling (Surface Ops) (Level 4 – check when complete) ___	
4. Pre-takeoff Check (Level 4 – check when complete) ___	
5. Takeoff (Nor and xwind)& Aero tow (Level 2 – check when complete) ___	
6. Box the Wake & Low Tow Position (Level 2 – check when complete) ___	
7. Straight Glides & Medium Bank Turns (Level 3 – check when complete)___	
8. Steep Turns (Level 3 – check when complete) ___	
9. Flight at various airspeeds & Slow Flight (Level 3 – check when complete) ___	
10. Straight Ahead Stalls (with spoilers) (Level 2 – check when complete) ___	
11. Turning Stalls (Level 2 – check when complete) ___	
12. Accelerated Stalls (Level 1 – check when complete) ___	
13. Cross-Control Stalls (2500' entry) (Level 1 – check when complete) ___	
14. Traffic Pattern and Landing (X-wind) (Level 2 – check when complete) ___	
15. Post-Flight Discussion	
16. Preview Next Lesson Review previous maneuvers. Forward and sideslips Slips to landings	Student Reading Assignment: Soaring Flight Manual: Spiral Dives – page 14-5 & fig. 14-4. Regulations – 6-1 thru 6-8

LESSON 6

During this lesson, the student will continue to develop proficiency in the practice maneuvers. Steep spirals will be introduced. Aero tows to 3000 feet AGL will be required to practice these maneuvers if thermals are not present.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		Emphasize precision in airspeed control.
2. Takeoff (Normal and X-wind) & Aero tow	Level 3	
3. Boxing the Wake & Low Tow Position	Level 3	
4. Airspeed Changes & Slow Flight/MCA	Level 3	Emphasize best L/D, minimum sink, and MCA.
5. Steep Turns	Level 4	
6. Straight Ahead Stalls	Level 4	
7. Turning Stalls	Level 3	
8. Accelerated Stalls	Level 3	
9. Steep Spirals	Level 2	Point out differences between a spiral and a spin.
10. Traffic Pattern, Approach	Level 3	Emphasize advance planning to allow for wing & sink.
11. Slips to Landing (Normal & Level 3 X-wind)	Level 3	
12. Post-Flight Discussion		
13. Preview Next Lesson Review previous maneuvers Introduce emergency procedures		Student Reading Assignment: Soaring Flight Manual: Review Airborne Emergency signals – page12-4 Review Aero Tow Emergencies – page 12-17 thru 12-19 Flight Publications and Airspace – pages 7-2 thru 7-10 Review SSF Standard American Soaring Signals Video if available.

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 6

OPERATION	COMMENTS
1. Pre-Flight Discussion	
2. Takeoff (Nor and xwind)& Aero tow (Level 3 – check when complete) ___	
3. Box the Wake & Low Tow Position (Level 3 – check when complete) ___	
4. Airspeed changes & Slow Flight/MCA (Level 3 – check when complete) ___	
5. Steep Turns (Level 4 – check when complete) ___	
6. Straight Ahead Stalls (Level 4 – check when complete) ___	
7. Turning Stalls (Level 3 – check when complete) ___	
8. Accelerated Stalls (Level 3 – check when complete) ___	
9. Steep Spirals (Level 2 – check when complete) ___	
10. Traffic Pattern and approach (Level 3 – check when complete) ___	
11. Slips to Landing (Normal & Level 3 X-wind) (Level 3 – check when complete) ___	
12. Post-Flight Discussion	
13. Preview Next Lesson Review previous maneuvers. Introduce emergency procedures	Student Reading Assignment: Soaring Flight Manual: Review Airborne Emergency signals – page12-4 Review Aero Tow Emergencies – page 12-17 thru 12-19 Flight Publications and Airspace – pages 7-2 thru 7-10 Review SSF Standard American Soaring Signals Video if available.

LESSON 7

At the completion of this lesson, the student should be able to make unassisted takeoffs and landings (even in light crosswinds), and be able to perform most flight maneuvers with the degree of proficiency necessary for safe, solo flight.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		
2. Takeoff (Normal and X-wind) & Aero tow	Level 4	
3. Boxing the Wake & Low Tow Position	Level 4	
4. Airspeed Changes & Slow Flight/MCA	Level 4	Student must know best L/D, minimum sink, and MCA.
4. Slack Line Recovery	Level 3	
5. Steep Turns	Level 4	
6. Straight Ahead Stalls	Level 4	
7. Turning Stalls	Level 3	
8. Accelerated Stalls	Level 3	
9. Steep Spirals	Level 3	Point out differences between a spiral and a spin.
10. Traffic Pattern, Approach	Level 3	Student must demonstrate advance planning allowing for wind & sink.
11. Slips to Landing (Normal & X-wind)	Level 3	
12. Post-Flight Discussion		
13. Preview Next Lesson Review of previous maneuvers. Emergency Procedures: Premature Release Off-Airport Landings		Student Reading Assignment: Review Aero tow Emergencies pages 12-17 thru 12-19 Performance Considerations pages 2-2 thru 2-10

IN-FLIGHT INSTRUCTOR'S GUIDE
Lesson 7

OPERATION	COMMENTS
1. Pre-Flight Discussion	
2. Takeoff (Nor and xwind)& Aero tow (Level 4 – check when complete) ___	
3. Box the Wake & Low Tow Position (Level 4 – check when complete) ___	
4. Airspeed changes & Slow Flight/MCA (Level 4 – check when complete) ___	Emphasize best L/D, minimum sink, and MCA.
5. Slack Line Recovery (Level 3 – check when complete) ___	
5. Steep Turns (Level 4 – check when complete) ___	
6. Straight Ahead Stalls (Level 4 – check when complete) ___	
7. Turning Stalls (Level 3 – check when complete) ___	
8. Accelerated Stalls (Level 3 – check when complete) ___	
9. Steep Spirals (Level 3 – check when complete) ___	Point out differences between a spiral and a spin.
10. Traffic Pattern and approach (Level 3 – check when complete) ___	Emphasize advance planning allowing for wind & sink.
11. Slips to Landing (Normal & X-wind) (Level 3 – check when complete) ___	
12. Post-Flight Discussion	
13. Preview Next Lesson Review of previous maneuvers. Emergency Procedures: Premature Release Off-Airport Landings	Student Reading Assignment: Review Aero tow Emergencies pages 12-17 thru 12-19 Performance Considerations pages 2-2 thru 2-10

LESSON 8

At the conclusion of this lesson, the student should have achieved a reasonably high degree of proficiency in all flight training maneuvers, and be able to make consistent, safe takeoffs, tows, and landings without instructor assistance or direction. He/she should have demonstrated the ability to solve all ordinary problems encountered during flight.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		
4. Slack Line Recovery	Level 3	
5. Thermalling Procedures & Techniques	Level 4	
7. Turning Stalls	Level 4	
8. Accelerated Stalls	Level 4	
9. Steep Spirals	Level 4	Student must be able to tell the difference between a spiral and a spin.
10. Traffic Pattern, Approach	Level 4	Student should demonstrate advance planning to allow for wind & sink. Student must demonstrate a traffic pattern, approach, and landing without reference to the altimeter and airspeed indicator before lesson is complete.
11. Slips to Landing (Normal & X-wind)	Level 4	
11. Emergency Procedures – Premature Release from tow.	Level 3	Student will practice premature termination of tow from 200' to 400' and at 800' or above.
12. Post-Flight Discussion		
13. Preview Next Lesson Review of previous maneuvers. Emergency Procedures: Emergency Signals – Ground & Airborne		Student Reading Assignment: Pilot Operating Handbook Review (Use CAP Glider Questionnaire as a tool for POH review) FAR 61 & 91 Review Solo Airport airspace rules and regulations

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OPERATION	COMMENTS
1. Pre-Flight Discussion	
5. Slack Line Recovery (Level 3 – check when complete) ___	
7. Turning Stalls (Level 4 – check when complete) ___	
8. Accelerated Stalls (Level 4 – check when complete) ___	
9. Steep Spirals (Level 4 – check when complete) ___	Point out differences between a spiral and a spin.
10. Traffic Pattern and approach (Level 4 – check when complete) ___	Emphasize advance planning to allow for wing & sink.
11. Slips to Landing (Normal & X-wind) (Level 4 – check when complete) ___	
11. Emergency Procedures – Premature Release from tow. (Level 3 – check when complete) ___	Student will receive premature termination of tow from 200' to 400' and at 800' or above.
12. Post-Flight Discussion	
13. Preview Next Lesson Review of previous maneuvers. Emergency Procedures: Premature Release Off-Airport Landings	Student Reading Assignment: Pilot Operating Handbook Review (Use CAP Glider Questionnaire as a tool for POH review) FAR 61 & 91 Review Solo Airport airspace rules and regulations

LESSON 9

At the conclusion of this lesson, the student should have achieved proficiency in all the required maneuvers.

OPERATION	COMPLETION LEVEL	COMMENTS
1. Pre-Flight Discussion		Administer aeronautical knowledge test that meets FAR 61.87(b) requirements.
2. Takeoff (Normal & X-wind)	Level 4	
3. Slack Line Recovery	Level 4	
4. Emergency Procedures (All)	Level 4	
5. Pattern & Landing	Level 4	
7. Solo Flight		If applicable. Ensure the student is not fatigued and the appropriate knowledge test and log book entries are complete. Flight time limit is 30 minutes or less for first solo flight.
12. Post-Flight Discussion		

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OPERATION	COMMENTS
1. Pre-Flight Discussion	
5. Takeoff (Normal & X-wind) (Level 4 – check when complete) ___	
7. Slack Line Recovery (Level 4 – check when complete) ___	
8. Emergency Procedures (All) (Level 4 – check when complete) ___	
9. **Pattern & Landing** (Level 4 – check when complete) ___	
10. Solo Flight ___	If applicable. Ensure the student is not fatigued and the appropriate log book entries have been make. Flight time limit is 30 minutes or less for first solo flight.
12. Post-Flight Discussion	